

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application. Applicant respectfully requests amendment of the Attorney Docket No. to 11345.020001.

Disposition of Claims

Claims 1-13 are pending in this application. Claims 1 and 13 are independent. The remaining claims depend, directly or indirectly, from claim 1.

Objection(s)

The instant application is objected to for failing to contain an abstract. An abstract has been added in this reply in view of this rejection. No new matter has been added by way of this amendment. Thus, this rejection is now moot.

Figure 1 is objected to for failing to label all diagrammatic blocks to indicate contents or function. The drawings have been amended in this reply in view of this rejection. No new matter has been added. Thus, this rejection is now moot.

Rejection(s) under 35 U.S.C § 102

Claims 1-13 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,311,204 ("the '204 patent") issued to Mills. This rejection is respectfully traversed.

In the instant application, claims 1 and 13 recite that a method and apparatus are

adapted to decompress and store an image file in its substantially original format *and subsequently to convert the image file to at least a second format for storage and display*, the first and second format versions of the image file being stored contemporaneously in the memory.

The present invention relates to a receiver/decoder for a digital audiovisual transmission system (page 1, lines 4-5). Images received by the receiver/decoder are not adapted to its CPU resources and memory resources. In other words, the present invention relates to the processing of images in a receiver/decoder with a limited RAM memory and a limited processing power (page 2, lines 19-26).

If the receiver/decoder had a large RAM working memory and as much CPU power as a PC, the receiver/decoder could store at least a large number, if not all of the images to be displayed, and could then decompress and display the images "on the fly" upon request from an application and in a very short time, imperceptible to the user.

However, because the receiver/decoder has only a small RAM working memory and a small CPU power, it is not possible to store the compressed images received and then decompress and display them "on the fly" upon request from the applications.

In one or more embodiments, the present invention decompresses all received images by means of a processor adapted to the capacities of the target decoder and storage. A further step includes converting the decompressed images into at least a second format for storage and subsequent display (page 3, lines 8-13). Thus, decompression is not carried out dependent on applications that may request display of an image. Accordingly, the processor anticipates decompression of a received image.

In the instant application, several examples of a first image format are provided.

The detailed description of the invention shows on page 13 various image formats, such as CLUT4, enabling a pixel to be encoded over 4 bits according to a 16-entry color look-up table (CLUT), or CLUT8, enabling a pixel to be encoded over 8 bits according to a 256-entry color look-up table, *etc.* The conversion of the images into a format as mentioned above is carried out upon reception of the images. The choice of this format depends on the limits of the receiver/decoder CPU power and memory capacity.

Figure 5 of the instant application shows the decompression and conversion steps on a particular embodiment (page 15, line 4 to page 17, line 27).

Contrastingly, as described on page 16, lines 5-17, in a PC environment, an image may always be directly decompressed and displayed in its original format (lines 9-10), whereas, in a receiver/decoder environment, a particular image format is chosen as a function of which format will be used for decompressing and converting the images, but these steps will be taken well before use of these images. In the present invention, these steps should be taken at the time of image reception.

Therefore, according to the present invention, every image received is decompressed and converted, upon reception, into the target format which is best suited to the processor and memory capacities of the target decoder, *e.g.*, the CLUT4 format. The images are then stored under this format before display by the graphic co-processor upon request from the application. As decompression is not carried out upon request, but is anticipated by the processor, it becomes possible to display the images requested by the applications within a very short time, which is imperceptible to the user.

One advantage of storing the images just after decompression is that it is possible to generate images having an alternate format at a later time. The images having the

alternate format may be sent to the processor for display, as a function of the current capacity of the graphics processor (page 3, lines 16-19).

In contrast to the present invention, the '204 patent discloses (col. 8, line 33+) a set top box providing functions such as input/output processing of video, audio and other data, audio and video demultiplexing and decompression, and graphics overlay processing for use. The set top box processor 20 includes a graphics processor 60 which can be configured to support a variety of graphics modes and resolutions. The '204 patent discloses a number of graphics modes, which require less memory and therefore free up large portions of memory for use in other processing applications. For this, as described in figure 2A, a color designator for a given pixel is supplied from memory 40 to the graphics processor 60. The memory 40 supports a graphics processor used for processing the MPEG video stream "on the fly" (col. 13, line 10+).

The '204 patent discloses an apparatus that converts an MPEG video stream "on the fly." The '204 patent is silent as to storing an image file. The '204 patent is silent as to an apparatus that decompresses and stores an image file in its substantially original format and a subsequent conversion of the image file to at least a second format for storage and display, as required by claim 1 of the instant application.

JX

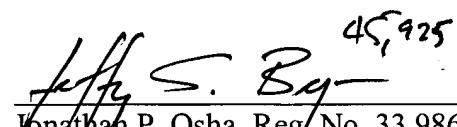
In view of the above, the '204 patent fails to show or suggest the present invention as recited in the claims. Thus, the claims 1 and 13 are patentable over the '204 patent. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusions

Applicant believes this reply to be fully responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 11345.020001).

Respectfully submitted,

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45,925
Jonathan P. Osha, Reg. No. 33,986
ROSENTHAL & OSHA L.L.P.
1221 McKinney Street, Suite 2800
Houston, TX 77010

Telephone: (713) 228-8600
Facsimile: (713) 228-8778

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